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## JACKSON COUNTY

### (Jackson County Water Service Area Map)

- Estimated 1999 population of 13,000--80% on public water
- Estimated 2020 population of 14,500--100% on public water
- 310 miles of water lines, with plans for 340 additional miles
- Estimated funding needs for public water 2000-2005--\$400,000
- Estimated funding needs for public water 2006-2020-\$33,000,000

Jackson County had an estimated population of 13,000 (5,024 households) in 1999 with a projected population of 14,540 (6,205 households) in 2020. Public water is provided to about 85 percent of the county's residents. In areas of the county not served by public water, about 70 percent of the households rely on private domestic wells and 30 percent of the households rely on other sources. Virtually 100% of the county will be served by public water through new line extensions in 2000-2020.

#### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
JACKSON								-
McKee	5	22	250				150	400
Total	5	22	250				150	400

#### *Estimated Costs - Proposed Projects, 2006-2020*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
JACKSON								-
Jackson Co. W/D	334	1,852	17,000		2,000	2,000	12,000	33,000
McKee								-
Total	334	1,852	17,000		2,000	2,000	12,000	33,000

### PUBLIC WATER SYSTEMS

Jackson County has 2 community water systems: 1 municipality, McKee Water Works, and 1 water association, Jackson County Water Association. A small part of the county is also served by Wood Creek Water District.

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# WATER SERVICE AREAS

## JACKSON COUNTY

Kentucky

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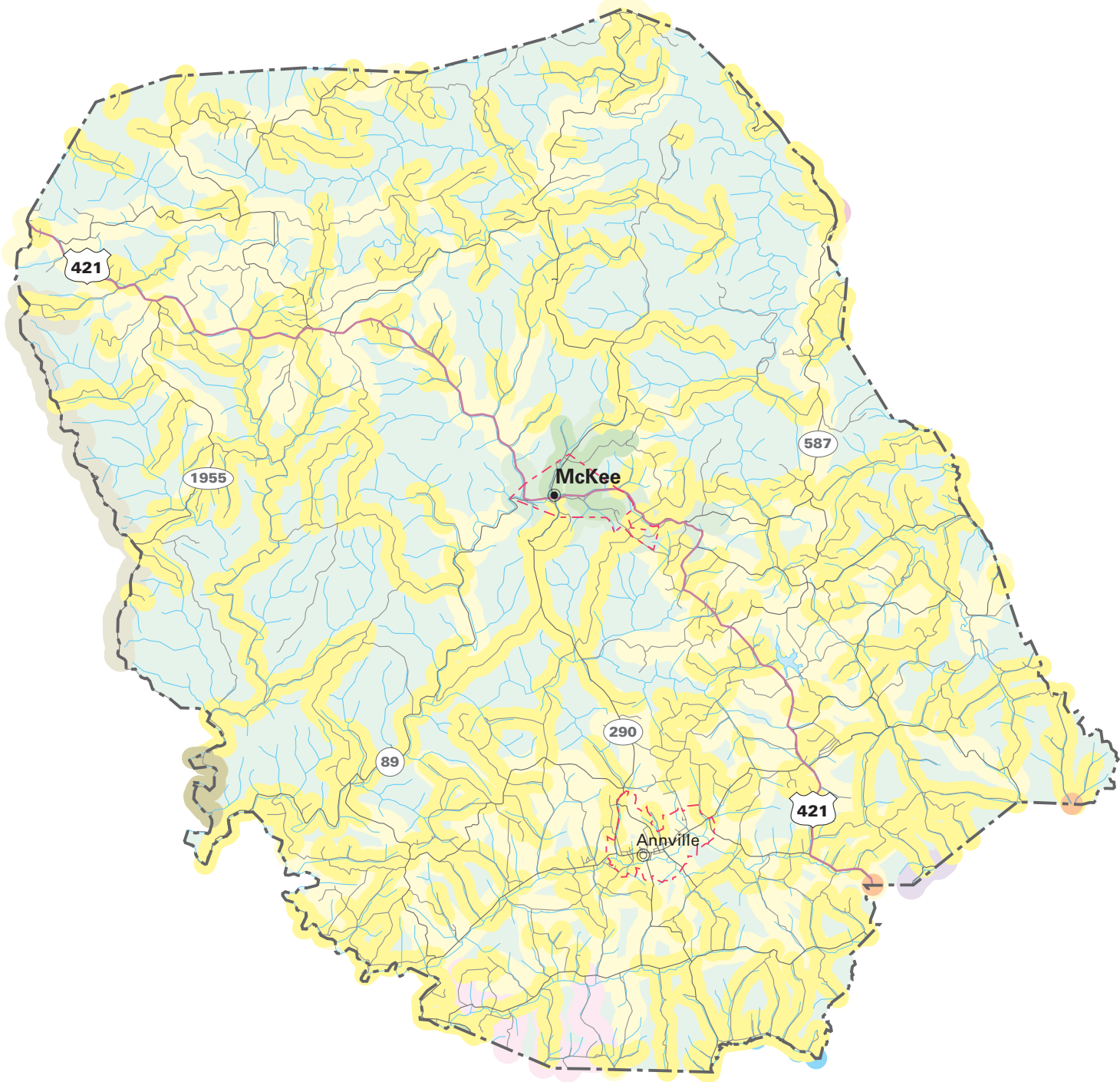
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### WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		WOOD CREEK WATER DISTRICT
		ROCKCASTLE COUNTY WATER ASSOCIATION
		NORTH MANCHESTER WATER ASSOCIATION
		MCKEE WATER WORKS
		MANCHESTER WATER WORKS
		JACKSON COUNTY WATER ASSOCIATION
		EAST LAUREL WATER DISTRICT
		BEATTYVILLE WATER WORKS

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### **JACKSON COUNTY WATER ASSOCIATION**

PWSID: ..... 0550209  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER ASSOCIATION  
Surface Source: ..... BELIAN LAKE  
Purchase Source:  
Well Source:  
Sells Water to: ..... MCKEE WATER WORKS  
Treatment Plant Capacity (MGD): ..... 1.00  
Percent Daily Average Production: ..... 79.00  
Total Tank Storage Capacity (gallons): ..... 410,000.00  
Total Service Connections: ..... 3,636.00  
Number of Employees: ..... 12.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class: ..... 3A  
Customer Rate for 1,000 Gallons: ..... 5.11  
O/M costs 1997: ..... 633,028.00  
O/M costs per Service Connection: ..... 176.97  
Net Revenue 1997: ..... 33,241.00  
Total Water Produced 1997 (gallons): ..... 282,775,000.00  
Water Sold 1997 (gallons): ..... 200,669,700.00  
Unaccounted-for Water 1997 (%): ..... 14.79

Jackson County Water Association gets its water from nearby Beulah Lake, and according to the Jackson County Water Supply Plan has an adequate supply of raw water to support any future needs. This association currently services 3,412 residential, 211 commercial, 7 industrial and 6 governmental customers. There are 30 customers in Estill County and 37 customers in Rockcastle County. Additionally, the association sells water to McKee Water Works, City of Beattyville and Rockcastle County Water Association. Jackson County Water Association has a plant that has a production capacity of 1 million gallons per day. On an average day the plant produces approximately 774,726 gallons of potable water or about 77% of its design capacity. The plant has the storage capacity of 410,000 gallons of water in their 5 water tanks and 190,000 gallons of water for its clear well.

### **MCKEE WATER WORKS**

PWSID: ..... 0550784  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source: ..... MCKEE RESERVOIR  
Purchase Source: ..... JACKSON COUNTY WATER ASSOCIATION  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.29  
Percent Daily Average Production: ..... 47.00

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Total Tank Storage Capacity (gallons): .....	100,000.00
Total Service Connections: .....	690.00
Number of Employees:.....	10.00
Treatment Operator Class: .....	2D
Distribution Operator Class:.....	2A
Customer Rate for 1,000 Gallons:.....	9.50
O/M costs 1997:.....	Not available
O/M costs per Service Connection: .....	Not available
Net Revenue 1997: .....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

McKee Water Works acquires water from McKee Reservoir (Bills Branch). According to the Jackson County Water Supply Plan this source is not an adequate source to provide potable water for future needs. This water system services 568 residential, 79 commercial, 2 industrial and 40 other customers. This system has entered into a trade agreement with Jackson County Water Association and purchases water via a master meter owned by Jackson County Water Association. The water plant has the production capacity of 300,000 gallons per day. On an average day the plant produces about 145,000 gallons of potable water or about 48% of its design capacity. The plant has the storage capacity of 100,300 gallons for their two underground storage tanks and 37,000 gallons of water for their clear well. The amount charged is \$9.25 for the basic usage of 1,000 gallons of water inside the city limits and \$9.75 is for the basic usage of 1,000 gallons of water outside the city limits.

## **PRIVATE DOMESTIC SYSTEMS**

About 1,900 people in Jackson County rely on private domestic water supplies: 1,350 on wells, and 550 on other sources.

In northern and western Jackson county most wells in the valley bottoms are located in limestone formations which in this area are adequate for domestic use. In the central and eastern parts of the county most drilled wells in the valley bottoms are set in sandstone, which usually produce enough water for domestic use. Most wells on hillsides produce enough water for domestic use and about half the wells drilled on hilltops and ridges are adequate for domestic use. In far eastern Jackson County, water becomes more scarce with only some wells in the valleys and a few well on the ridges able to produce enough water for domestic use.

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Most well water in Jackson County is moderately hard and contains noticeable amounts of iron. Some wells in Station Camp Creek valley produce very hard water that may contain hydrogen sulfide in objectionable quantities. Salt water can also be found at depths of 100 feet and greater below the principal valley bottoms in eastern, northern and western Jackson County.

A few springs supply sufficient quantities of water for domestic use. Most springs yield less than 5gpm except in the northern and western parts of Jackson County where limestone springs producing up to 100 gpm can be found.

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